



SB10015M Low IR Schottky Barrier Diode 15V, 1.0A Rectifier

Applications

- High frequency rectification (switching regulators, converters, choppers)

Features

- Small switching noise
- Low leakage current and high reliability due to highly reliable planar structure
- Ultrasmall package permitting applied sets to be small and slim (mounting height 0.85mm)

Specifications

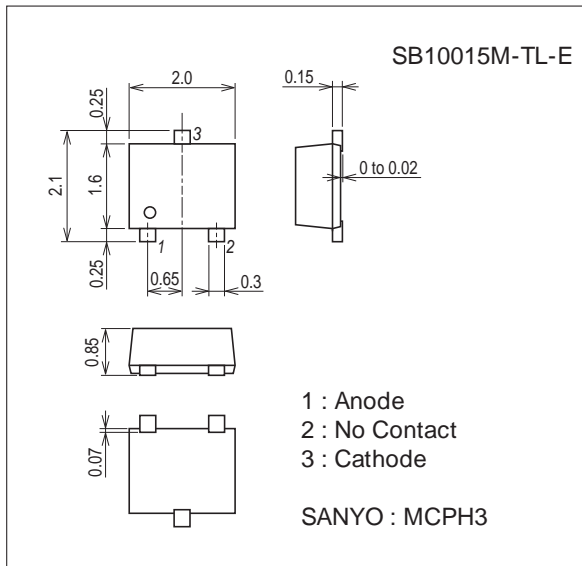
Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Repetitive Peak Reverse Voltage	VRRM		15	V
Nonrepetitive Peak Reverse Surge Voltage	VRRSM		17	V
Average Output Current	IO		1.0	A
Surge Forward Current	IFSM	50Hz sine wave, 1 cycle	10	A
Junction Temperature	Tj		-55 to +150	°C
Storage Temperature	Tstg		-55 to +150	°C

Package Dimensions

unit : mm (typ)

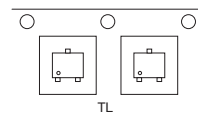
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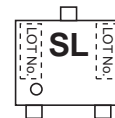
Product & Package Information

- Package : MCPH3
- JEITA, JEDEC : SC-70, SOT-323
- Minimum Packing Quantity : 3,000 pcs./reel

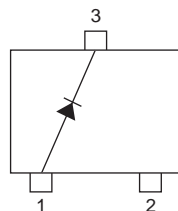
Packing Type : TL



Marking



Electrical Connection

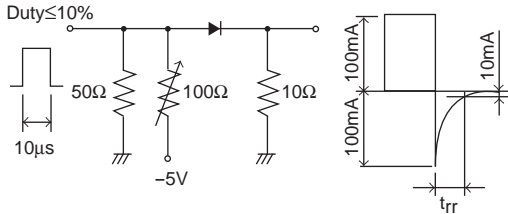


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Electrical Characteristics at $T_a=25^\circ\text{C}$

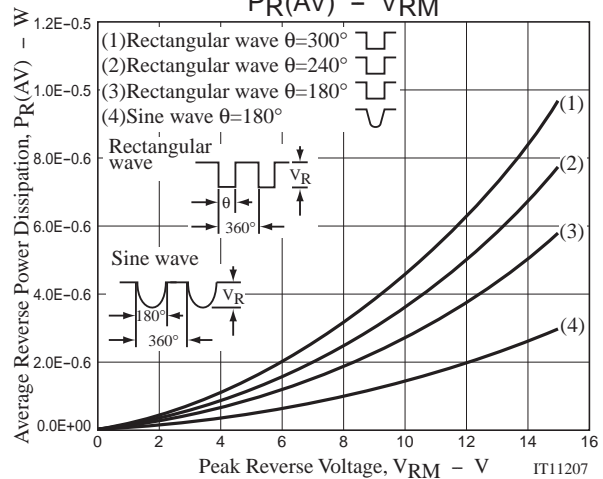
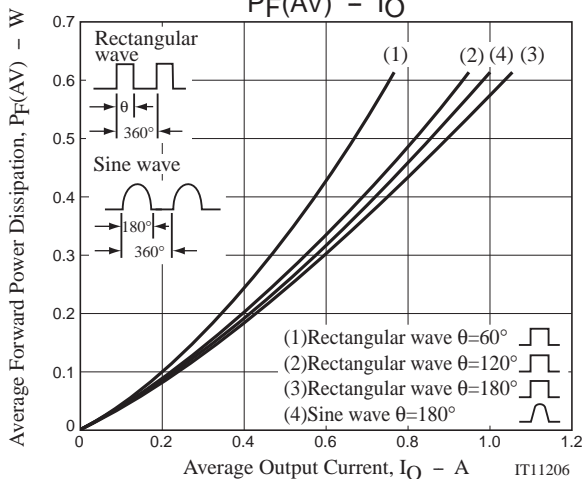
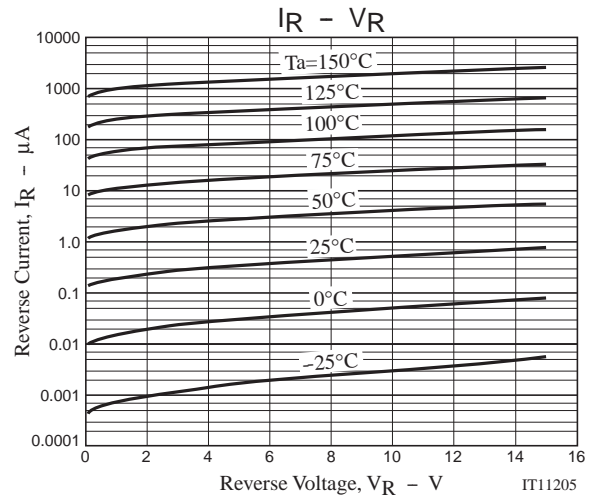
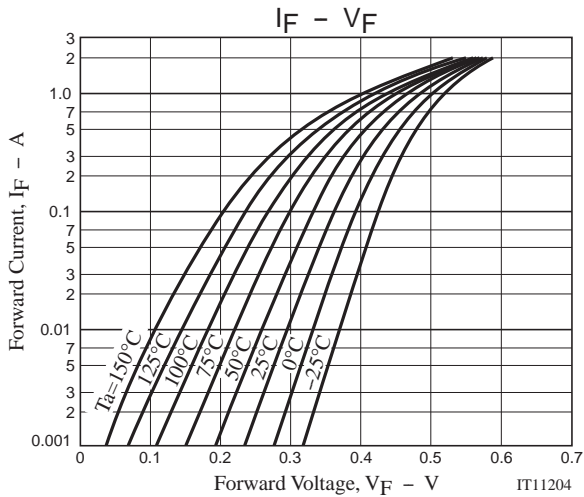
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Reverse Voltage	V_R	$I_R=0.1\text{mA}$	15			V
Forward Voltage	V_{F1}	$I_F=0.5\text{A}$		0.43	0.48	V
	V_{F2}	$I_F=1.0\text{A}$		0.49	0.54	V
Reverse Current	I_R	$V_R=7.5\text{V}$			3	μA
Interterminal Capacitance	C	$V_R=10\text{V}, f=1\text{MHz}$		20		pF
Reverse Recovery Time	t_{rr}	$I_F=I_R=100\text{mA}$, See specified Test Circuit.			10	ns
Thermal Resistance	$R_{th(j-a)}$	When mounted in Cu-foiled area of $0.72\text{mm}^2 \times 0.03\text{mm}$ on glass epoxy substrate		185		$^\circ\text{C} / \text{W}$

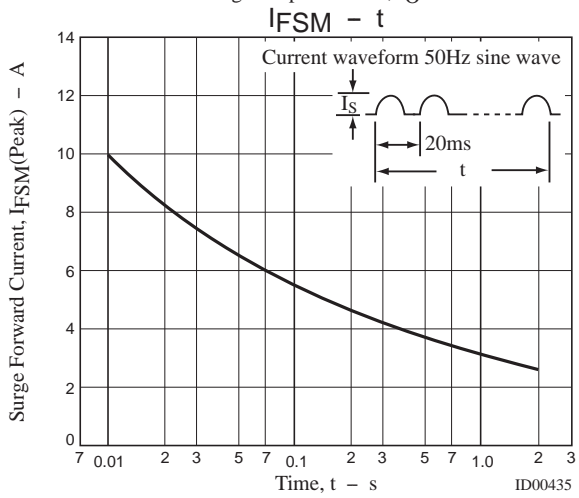
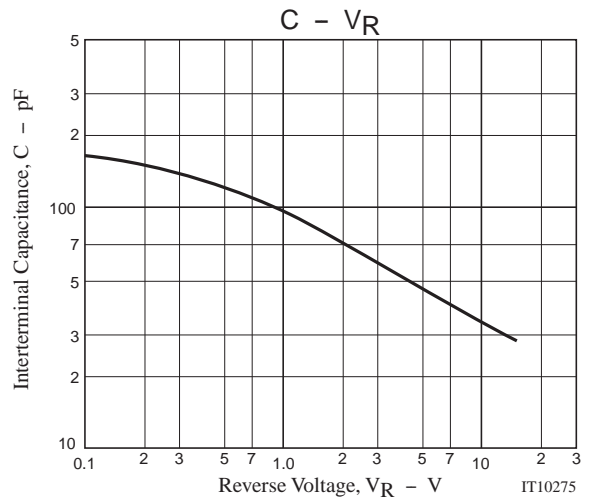
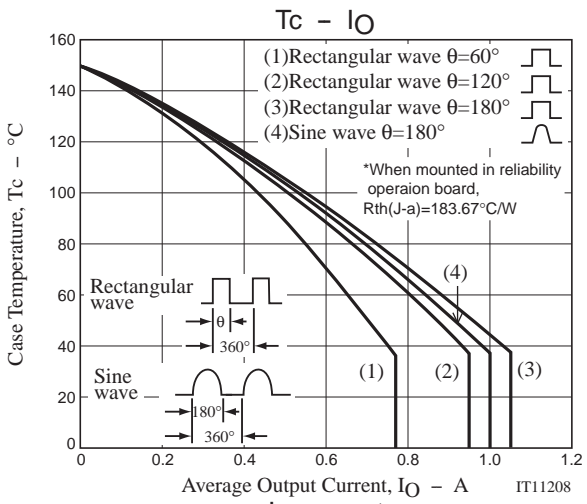
t_{rr} Test Circuit



Ordering Information

Device	Package	Shipping	memo
SB10015M-TL-E	MCPH3	3,000pcs./reel	Pb Free





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Taping Specification

SB10015M-TL-E

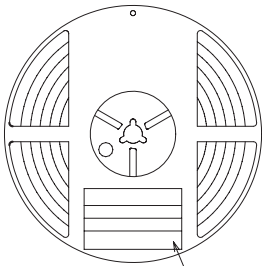
1. Packing Format

Package Name	Carrier Tape Type	Maximum Number of devices contained (pcs)			Packing format	
		Reel	Inner box	Outer box	Inner BOX (C-1)	Outer BOX (A-7)
MCPH3	MCPH3	3,000	15,000	90,000	5 reels contained Dimensions:mm (external) 183×72×185	6 inner boxes contained Dimensions:mm (external) 440×195×210

Reel label, Inner box label
(unit : mm)

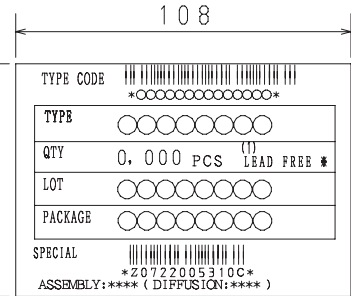
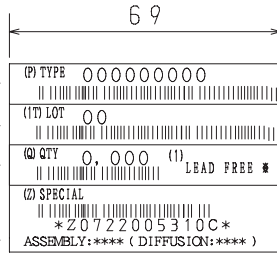
Outer box label
It is a label at the time of factory shipments.
The form of a label may change in physical distribution process.

Packing method



Type No. →
LOT No. →
Quantity →
Origin →

Reel label



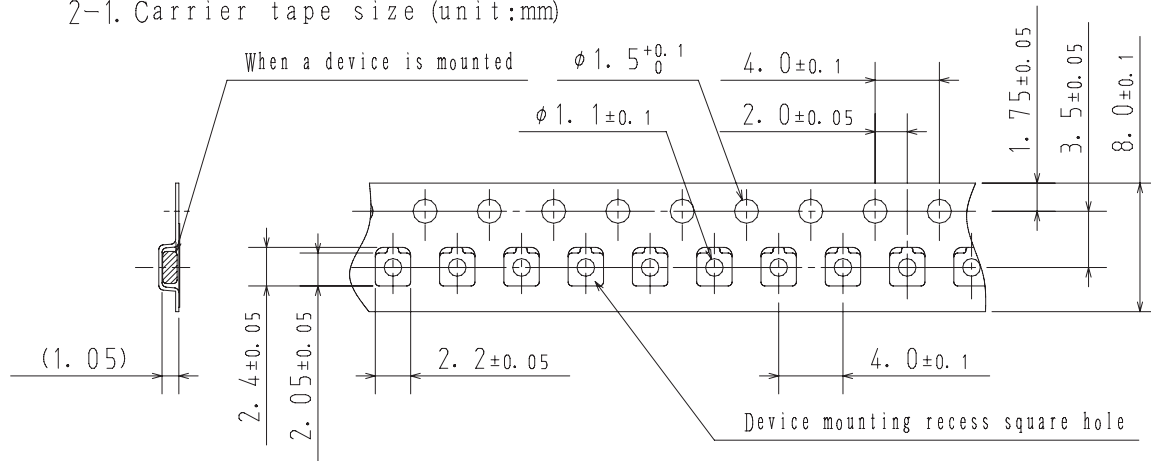
NOTE (1)

The LEAD FREE * description shows that the surface treatment of the terminal is lead free.

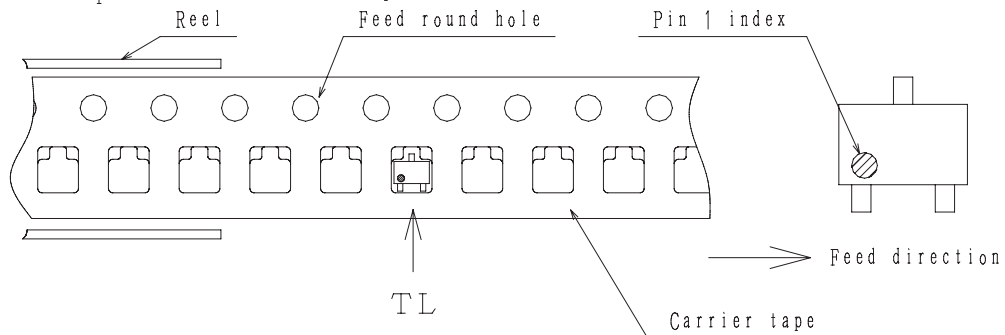
Label	JEITA Phase
LEAD FREE 3	JEITA Phase 3A
LEAD FREE 4	JEITA Phase 3

2. Taping configuration

2-1. Carrier tape size (unit:mm)



2-2. Device placement direction

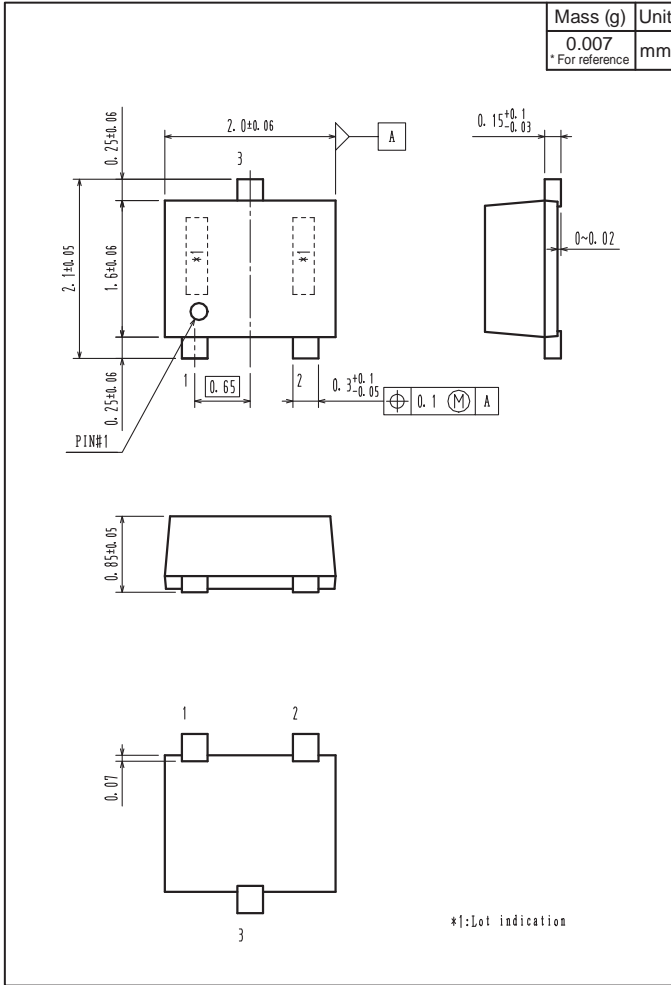


Those with pin 1 index on the feed hole side.....TL

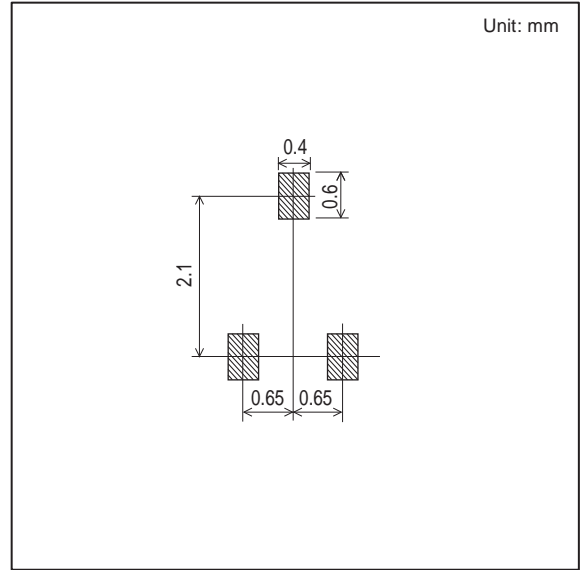
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Outline Drawing

SB10015M-TL-E



Land Pattern Example



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